corridor is visible only from streets that cross them. In others, the rights-of-way are paralleled by frontage roads from which the rail corridors are fully visible to road users. The views within the industrial corridor landscape areas are of settings that are highly engineered and constructed. Little natural vegetation and limited landscaping are present. The views are dominated by the horizontal lines of the rail corridor; large-scale and often boxy industrial structures; paved areas used for parking and trucking operations; and in some cases, untidy areas used for outdoor storage. The scale tends to be large, and there are relatively few features that are intended to create a sense of human scale. The dominant colors tend to be varying tones of gray and brown, and the textures include the rough gravel of the rail beds, smooth paved areas, and smooth-sided industrial structures. Because of the presence of the large industrial structures that block views outward, most of the views in the industrial corridors are close-range, foreground views. In some cases, when air quality conditions permit, surrounding hills and mountains can be seen in distant views. In the areas closest to Union Station, the downtown Los Angeles skyline also is visible at times. Figure 2.2-4 is a photographic view of a portion of an industrial corridor in the Fontana area, where the rail track itself is hidden behind trucking facilities that back up to it.

In general, it is fair to say that the level of visual quality in most of the industrial corridors along the proposed alignments is low, reflecting the highly altered conditions and the utilitarian functions of these areas. The sensitivity of viewers in these areas to visual change can be assumed to be low as well, since most viewers in these areas can be assumed to be engaged in work or work-related travel, activities that are not necessarily related to or dependent upon the quality of the surrounding landscape.

2.2.2 Mixed Urban/Community Core Districts

In the area around Union Station in Los Angeles and around the historic centers of communities in the San Gabriel Valley and in Pomona, Ontario, and San Bernardino areas, the rail corridors proposed as Subsegments 1A1, 1A2, 1A3, and 1C1 pass through or adjacent to areas of mixed urban uses that extend up to the railroad right-of-way, with little or no buffer of industrial development. In addition, proposed Subsegment 2B1 passes through the central area of Escondido, and the southern end of Subsegment 3B2 passes through the fringes of the San Diego Central Business District. In these areas, the setting has a traditional urban character, with a regular block and lot pattern, creating a grid of urban streets lined with buildings of varying ages housing a variety of commercial, governmental, and institutional uses. Because in many cases, these areas include the historic community centers, they contain older structures, often of some architectural merit, that are of historic or symbolic importance. Although these areas are generally highly developed in character, there is often some vegetation, consisting of street trees, and in some cases, small landscaped areas on lawns or in public open spaces. In these areas, there tends to be a mix of horizontal and vertical elements, and the forms of structures tend to be rectilinear. Although some of the buildings may be large, the structures in these settings tend to have a human scale because of the doors, windows, and other architectural details that break up their facades and add visual interest. In general, the views in these areas are restricted to the near foreground zone, although there are places in some of these areas where there are views down streets or over the buildings where distant mountains can be seen in the background. Figure 2.2-5, a view toward the Pomona train station from downtown Pomona, is provided as an example of views from these kinds of areas.

In general, the level of visual quality in these mixed urban/community core district landscape areas is moderate, but in cases like that of the Pomona example provided in Figure 2.2-2, where there are historically and architecturally important structures and/or where there are distant views of important natural features, the level of visual quality is high. The level of visual sensitivity in these areas tends to be high because they are used by large numbers of people as they shop, recreate, or participate in community activities.

2.2.3 High-Density, Urban Residential Areas

At a number of points along the rail corridor, particularly in Los Angeles, the older portions of the San Gabriel Valley, and in central San Diego, there are areas of high-density housing close to the railroad rights-of-way along which the HST Alternative has been proposed. In some cases, this housing consists



of multistory apartment dwellings like the one seen in Figure 2.2-6. However, as is more often the case, the housing consists of one-story, single-family dwellings on small lots. These areas tend to have a traditional urban character, with a regular pattern of blocks and lots. Because of the high density of development, trees and other vegetation tends to be somewhat limited. Structural forms tend to be rectangular, with horizontal lines predominating in the single-family areas, and with a mix of horizontal and vertical lines in the areas with multistory apartments. The scale tends to be human oriented, even in the areas with apartment buildings, given the presence of windows and other architectural features that break up the building facades and provide a sense of human proportions. The range of colors present in these areas can vary considerably. Because of the dense pattern of development, views tend to be restricted to the near foreground, although in some cases, more distant features can be seen over rooftops and down street corridors.

The level of visual quality in these high-density, urban residential districts ranges from low to moderately high. Because these are areas where large numbers of people make their homes and experience the environment as they use their homes and yards and travel around their neighborhoods, the level of visual sensitivity is moderate to high.

2.2.4 Lower-Density, Suburban Residential Areas

For many miles along the rail corridors proposed for use by the HST Alternative in this region, the corridors pass through or are adjacent to lower-density, suburban neighborhoods of single-family homes, particularly along Subsegments 1A1, 1B1, 1C1, and 3B2. In addition, along Subsegment 1A4, the alignment is proposed for a location down the center of an arterial street through the middle of a single-family residential neighborhood located in the area to the east of the University of California (UC) at Riverside campus. In general, these neighborhoods have a suburban character, with a moderate intensity of development, and with more trees and other landscaping than is present in the residential areas classified as "high-density-urban." Structural forms tend to be rectangular, with horizontal lines predominating. Because of the presence of the street trees and other vegetation, the forms of the structures are hidden and softened to some extent. The residential scale of the structures, and the presence of landscaping, fences, and other small-scale features provides these areas with a complex, human-scale appearance. The presence of the residences and landscaping tends to restrict views to the near foreground, although in some cases more distant features can be seen over rooftops and down street corridors. Figure 2.2-7 is a view of an older single-family residential area in San Bernardino that is located along an existing rail corridor. Figure 2.2-8 is a view in a residential neighborhood east of UC Riverside where there is no rail corridor currently, but where the HST will follow an alignment down the center of the arterial street visible in the photo.

The level of visual quality in these lower-density, suburban areas tends to range from moderate to moderately high. Because these are areas where large numbers of people make their homes and experience the environment as they use their homes and yards and travel around their neighborhoods, the level of visual sensitivity is high.

2.2.5 Freeway Corridors

For much of its length in Segment 2 and in large portions of Segment 3, the HST segments are located either immediately adjacent to or down the middle of existing freeways, (I-215 and I-15 in Segment 2, and I-15 and I-5 in Segment 3). Because the freeway corridors are wide and highly developed, creating an environmental setting of their own that is somewhat different from that of the areas they pass through, and because they are seen in the immediate foreground by the very large numbers of people who use the freeways, they constitute a highly appropriate landscape unit for use in evaluating the visual impacts of this project. For the predominantly rural areas in much of Segment 2, this freeway landscape is being used as the starting point for the aesthetic analysis because the portion of the setting most affected by the project will be the freeway corridor itself, and because it is the portion of the landscape that is seen by the greatest numbers of people.

Figure 2.2-9 is a view of a portion of I-15 along Segment 2 in northern San Diego County where the proposed HST segment would follow the eastern edge of the freeway (the right side, in this northbound view). As this photo suggests, in the freeway corridors, the freeway landscape has a highly developed, large-scale, and highly linear appearance. Except for ramps and overcrossing structures, the landscape tends to be open in character. Because of the openness and because the freeways cut through large swaths of the region, the freeway settings provide a corridor for viewing large areas of foreground, middle ground, and more distant landscape.

Within the freeway corridor itself, the visual quality of the landscape tends to range from moderately low to moderately high. Even though the freeway corridors are highly altered and engineered environments, in general, they have been well designed and are reasonably well maintained, creating a visual environment that is coherent and, to a greater or lesser degree, integrated into its overall landscape setting. In some cases, the attractiveness of the landscape is enhanced by the high visual quality of the areas it passes through, which is the case in the view seen in Figure 2.2-9. In other cases, the attractiveness of the freeway environment has been enhanced by landscaping and well-designed crossing structures, retaining walls, and other road-related features. The visual sensitivity of the freeway settings is moderate to high. Although they are highly developed and utilitarian settings, the freeway corridors are used by very large numbers of people every day, and the views from the freeways provide people with images of a large part of the region's landscape, many portions of which are attractive. In addition, the views from the freeway allow people to see many of the region's developed areas and the important facilities within them.

2.2.6 Institutional/Large Scale Commercial Areas

At a number of points along the proposed alignments, the corridor passes through or adjacent to large institutional or large-scale commercial installations. Notable examples of these features include Ontario Airport along Subsegments 1A2 and 1A3; Ontario Mills Mall along Subsegments 1A3 and 1C1; California Speedway along Subsegment 1C1; March ARB along Subsegments 1A4 and 2A; Marine Air Corps Station (MCAS) Miramar along Subsegment 3A1, 3B1, and 3C1; Qualcomm Stadium along Segment 3A1; and San Diego International Airport along Subsegment 3B2. Figure 2.2-10 is a view of one of these installations, March ARB located along Subsegment 1A4 and Segment 2A in the area between Moreno Valley and Perris. These installations vary somewhat in their appearance, but common elements include their location on large parcels, the presence of large areas devoted to pavement, and the presence of large structures. The forms of the structures at these installations tend to be rectangular and boxy. In most cases, because of the vast expanses of paved area, horizontal lines predominate in views of these installations. With the exception of MCAS Miramar, which has some large areas of natural-appearing landscape, most portions of these facilities have a highly altered appearance and limited natural vegetation. The scale of the structures, parking areas, runways, and other features at these installations tends to be very large. Because large portions of these areas are open, views tend to be more expansive than in most other areas along the corridor, and in many cases, it is possible to see foreground, middle ground, and background features of the landscape.

The level of visual quality of the landscapes created by these installations tends to be in the low to moderate range. Although these facilities are used and seen by very large numbers of people, it can be assumed that their sensitivity to visual change is generally low in that these are areas that are highly developed and are intended to serve specific utilitarian purposes. The primary exception to this generalization is MCAS Miramar, which includes some large areas of natural-appearing land that may serve to some degree as a visual amenity for people who live in the surrounding area or who may drive on the freeways that cut across it.

2.2.7 Park and Recreation Areas

For the most part, the segments being considered for the Los Angeles to San Diego via the Inland Empire corridor completely avoid public park and designated open space areas. In the Union Station to March ARB area, Segment 1 passes adjacent to or in the vicinity of but does not encroach upon a number of



small urban parks and public and private golf courses. Segment 1 also makes use of an existing rail corridor adjacent to the UC Riverside campus, which has a park-like quality. In Segment 2, the freeway corridor where the alignment would be located passes adjacent to an ecological reserve near Temecula and several golf courses and parks in Riverside and San Diego Counties. In Segment 3, Subsegment 3C1 makes use of an existing rail corridor adjacent to Miramar Memorial Golf Course, and Subsegment 3B2 uses an existing rail corridor that extends approximately 2.5 miles along the boundary of the Rose Canyon Open Space and for a short distance along the edge of the Marian Bear Memorial Natural Park. The site of the Transit Center Station also lies immediately adjacent to the Rose Canyon Open Space area. Approximately 2.5 miles of the rail corridor along the eastern edge of I-5 that Subsegment 3B2 follows lies across the freeway from and in the near-distance viewshed of Mission Bay Park. Figure 2.2-11 is a view of this portion of Subsegment 3B2 as seen from the eastern edge of Mission Bay Park

The level of visual quality of the landscapes in the direction of the proposed HST segments that are visible from these park and open space areas ranges from moderately low to moderately high. In many cases, the views toward the railway seen from these areas has a generally developed character, which includes a rail corridor and/or freeway, and very often residential or industrial structures are visible in the backdrop. In general, it is assumed that the visual sensitivity of the views of people using these park and open space areas is moderate to high.



Figure 2.2-4 View of Industrial Corridor Along Subsegment 1C1 in Fontana



Figure 2.2-5 View Toward the Pomona Train Station from a Plaza in Downtown Pomona



Figure 2.2-6 View of a High-Density Residential Structure Adjacent to Subsegment 3B2 near Downtown San Diego



Figure 2.2-7 View of a Low-Density Suburban Residential Area in San Bernardino along Subsegment 1C1



Figure 2.2-8 View of a Low-Density Suburban Residential Area in Riverside along Subsegment 1A4

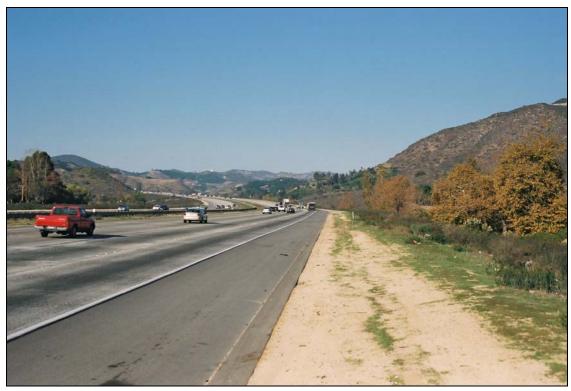


Figure 2.2-9 View of I-15 along Subsegment 2A2 in Northern San Diego County Where this HST Alternative Subsegment Would Follow the Eastern Edge of the Freeway



Figure 2.2-10 View of March ARB along Subsegment 2A2



Figure 2.2-11 View Toward Subsegment 3B2 from Mission Bay Park in San Diego

2.3 Scenic Resources

Table 2.3-1 identifies any important scenic resources that exist within 0.25-mile of the proposed alignments being evaluated. The focus of this table is on scenic resource features related to the questions posed by the CEQA guidelines that provide the basis for determining whether a project would have significant visual impacts.

Because the first of the CEQA questions asks whether the project would have a substantial adverse effect on a scenic vista, the third column identifies any scenic vistas that might exist within 0.25-mile of the proposed alignment. Scenic vistas are defined as views from developed or otherwise formally established areas for taking in scenic views, as well as areas that are not formally designated but provide rare opportunities to see particularly outstanding vistas. For the undesignated vista viewing areas, particular emphasis has been placed on the uniqueness of the view in determining whether the viewpoint deserves identification on the list. Outstanding views that can be seen from the area along the alignment, but which are ubiquitous in the surrounding area, are not called out for special attention in this analysis.

The second CEQA question asks whether the project would adversely affect scenic resources "within" a state designated scenic highway. Because none of the alignments being considered in this region lie near any officially adopted state scenic highways, this table does not include a column pertaining to "scenic corridors." The third CEQA question for determining the significance of visual impacts asks whether the project would result in a substantial degradation of the character and quality of the site and its surroundings, and the fourth question is related to impacts associated with night lighting. Because evaluation of these questions entails consideration of the relationships of the specifics of the project design with the specifics of the context, treatment of these questions has been deferred to the impacts analyses in Section 4.

Table 2.3-1 Inventory of Scenic Vista Points Within 0.25-Mile of HST Segments in the Los Angeles to San Diego via Inland Empire Region

Segment or Subsegment	Description of Alternative or Segment Location	Scenic Viewing Points/Overlooks Number Within 0.25-Mile			
	No-Project Alternative				
Segment 1	Union Station to March ARB	none			
	HOV Projects on I-710, I-5, SR 71, I-10, I-215, I-15; additional mixed-flow lanes on I-710; expansion of terminals and parking at Ontario International Airport				
Segment 2	March ARB to Mira Mesa	none			
	HOV projects on I-215, I-15; additional mixed-flow lanes on I-215.				
Segment 3	Mira Mesa to San Diego	none			
	Addition of lanes and other improvements to I-15; expansion of terminals and parking at San Diego International Airport				
	Modal Alternativ	e			
Segment 1	Union Station to March ARB	none			
	Improvements to I-10, I-15, I-215, and Ontario International Airport				
Segment 2	March ARB to Mira Mesa	none			
	Improvements to I-215 and I-15				
Segment 3	Mira Mesa to San Diego	none			
	Improvements to I-15, SR 163, and San Diego International Airport				
High-Speed Train Alternative					
Segment 1: Union Station to March ARB					
Segment 1A	T				
1A1	Union Station to Pomona	View from plaza in downtown Pomona toward historic train station and San Gabriel Mountains			
1A1	El Monte Station	none			
1A2	Pomona to Ontario	none			
1A2	Pomona Station	None (proposed station does not lie within view from the downtown plaza)			
1A2	Ontario Station	none			
1A3	Ontario to Colton along Segment 1A	none			
1A3	Colton Station	none			
1A4	Colton to March ARB	none			
1A4	UC Riverside Station	none			
Segment 1B					
1B1	Union Station to Pomona	none			
1B1	South El Monte Station	none			
1B1	City of Industry Station	none			

Table 2.3-1 Inventory of Scenic Vista Points Within 0.25-Mile of HST Segments in the Los Angeles to San Diego via Inland Empire Region

Segment or Subsegment	Description of Alternative or Segment Location	Scenic Viewing Points/Overlooks Number Within 0.25-Mile
Segment 1C		
1C1	Ontario to Colton along Segment 1C	none
1C1	San Bernardino Station	none
Segment 2: Marc	h ARB to Mira Mesa	
Segment 2A		
2A1	March ARB to Escondido	none
2A1	March ARB Station	none
2A2	Beginning of Segment 2B to end of 2B along 2A	none
2A2	Temecula Station	none
2A2	Escondido Station	none
2A3	End of Segment 2B to Mira Mesa	none
Segment 2B		
2B1	Beginning of Segment 2B to end of 2B along 2B	none
2B1	Escondido Transit Center Station	none
Segment 3 Mira M	Mesa to Southern Terminus	
Segment 3A		
3A1	Mira Mesa to Qualcomm Stadium	none
3A1	Mira Mesa Station	none
3A1	Qualcomm Stadium Station	none
Segment 3B		
3B1	Beginning of Segment 3C to end of 3C, along 3B	none
3B2	End of Segment 3C to downtown San Diego	Views toward canyons and coast from trails in Rose Canyon Open Space
3B2	Transit Center Station	Views toward canyons and coast from trails in Rose Canyon Open Space
3B2	San Diego International Airport Station	none
3B2	Downtown San Diego Station	none
Segment 3C		•
3C1	Beginning of Segment 3C to end of 3C, along 3C	none

3.0 EVALUATION METHOD

The visual resource analysis for this program-level EIR/EIS is focused on a broad comparison of potential impacts to visual resources (particularly scenic resources or sensitive viewing areas) along corridors for each of the alternatives (Modal and HST Alternatives) and around stations. The potential impacts for each of these alternatives are compared with the No-Project Alternative.

Because the region covers a number of different types of landscapes over a large geographic area (industrial corridors, city centers, mixed-use urban areas, residential areas, and freeway corridors), a typology of landscapes is used to characterize the landscapes in the region that are within 0.25-mile of the alternative corridors and stations. An example of each type of landscape is described in terms of the foreground, middle-ground, and background dominant features that make up its distinguishable color, texture, line, and form. The typology includes landscapes that are particularly scenic in the region, as well as landscapes that are typical. This makes up the baseline existing conditions against which the analysis of change or impact for each of the alternatives is compared. Photographs of the existing features for each of the landscapes illustrate the dominant line, form, color, and texture for that landscape type

The summary tables for the region are then completed and identify scenic/visual resources within the 0.25-mile study area for each of the corridor segments and around station sites for the HST Alternative and along highway corridors and around airports for the Modal Alternative. Reference to the unique scenic landscapes and the typical landscapes described and illustrated in the typologies is made in the tables.

Using a subset of the existing condition photographs, photo simulations have been prepared that illustrate the appearance of the facilities associated with the Modal and HST Alternatives as they would appear in these views. These simulations are then used as point of departure for determining how the dominant visual features that now characterize the landscape would change if the alternative were implemented. Of particular concern are elevated structures (guideways or overpasses) and tunnel portals. Also of concern are the potential shadow effects of elevated structures and the light and glare effects of the alternatives. These changes, or visual impacts, are described and ranked as "high," "medium," or "low" in the summary table according to the potential extent of change to scenic visual resources.

The CEQA criteria for determination of significant visual impacts are related to the following questions.

- Would the project have a substantial adverse effect on a scenic vista?
- Would the project substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within view of a state scenic highway?
- Would the project substantially degrade the existing visual character or quality of the site and its surroundings?
- Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Each of the CEQA criteria is considered in the assessment of potential impacts.

4.0 VISUAL IMPACTS

4.1 No-Project Alternative

The No-Project Alternative would have relatively minor effects on visual resources. The addition of high-occupancy vehicle (HOV) lanes and mixed-flow lanes on existing freeways would require modifications of freeway corridors to add additional lanes and may require removal of existing landscaping. In Segment 3, interchange improvements may require modifications of ramps and structures. Because the freeway corridors affected are already highly modified areas of the landscape and because the visual changes would be relatively minor, the potential for these changes to result in substantial degradation of the character and quality of the environment affected is very low.

The expansion of the terminals and parking facilities at the Ontario and San Diego airports would result in visible changes to these facilities with the addition of major new structures. However, within the context of these sites, which are already developed with similar structures, the nature of the change would not be inconsistent with what exists, and, assuming an adequate level of architectural design, the changes likely would not result in a substantial degradation of the visual character or quality of these facilities or the areas around them.

The proposed changes to freeways and airports would not affect any notable scenic vistas or state-designated scenic highways. During the construction phase of these projects, there may be some lighting impacts related to the nighttime illumination of construction activities, but because these impacts would be relatively short in duration, they would not be significant. Because the changes would entail the addition of relatively few structures, and these structures would be located in the context of existing freeway and airport settings, shadow impacts likely would not be an issue of substantial concern.

4.2 MODAL ALTERNATIVE

The effects of the Modal Alternative on visual resources would be moderate. The addition of two lanes each to the existing freeways in the region would require modifications of freeway corridors entails adding additional lanes, and, in places, may require removal of existing landscaping, modification of sound walls, and changes to or replacement of crossing structures. Although the freeway corridors affected are already highly modified areas of the landscape, some of the modifications required as part of the Modal Alternative would likely cause changes that are visible and would have some effect on the existing character and quality of the environment experienced by freeway users. However, the visual changes would not be expected to be so great as to constitute substantial degradation of the visual qualities of the existing setting.

The expansion of the terminals and parking facilities at the Ontario and San Diego airports required under the Modal Alternative would result in visible changes to these facilities with the addition of major new structures. However, within the context of these sites, which are already developed with similar structures, the nature of the change would be consistent with what exists, and, assuming an adequate level of architectural design, the changes would not result in a substantial degradation of the visual character or quality of these facilities or the areas around them.

The proposed changes to freeways and airports would not affect any notable scenic vistas or state-designated scenic highways. During the construction phase of these projects, there could be some lighting impacts related to the nighttime illumination of construction activities, but because these impacts would be relatively short in duration, they would not be significant. Because the changes would entail the addition of relatively few structures, and these structures would be located in the context of existing freeway and airport settings, shadow impacts would not likely be an issue of substantial concern.

4.3 HIGH-SPEED TRAIN ALTERNATIVE

The effects of the High-Speed Train Alternative on visual resources are assessed below, using the framework of the criteria set forth in Appendix G of the *State CEQA Guidelines*. The CEQA guidelines define a "significant effect" on the environment to mean a "substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including...objects of historic or aesthetic significance (14 CCR 15382)." The four questions related to aesthetics that are posed for lead agencies and the answers to them for the High-Speed Train Alternative are examined below.

1. Would the project have a substantial adverse effect on a scenic vista?

As indicated in Table 2.3-1, the only places along the HST Alternative in this region where there are viewpoints that could be construed as offering views of scenic vistas are at a plaza in downtown Pomona along Subsegment 1A1, along the trails in the Rose Canyon open space in San Diego along Subsegment 2B2, and in the vicinity of the Transit Center Station. In Pomona, the elevated HST structure would require modification of an existing and elaborately designed pedestrian crossing structure, would substantially block views of the historic station building, and would partially block views toward the San Gabriel Mountains in the backdrop. The impact on this view would be high, and without mitigation, could be significant. In Rose Canyon in San Diego, the HST would be at grade and, as a consequence, would likely not block views from the rail system. The station structures would be set into the hillside and would be visible from the rail system. These structures would alter the character of the views to some extent, but they would not block the view toward the distant vista.

2. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

This question does not apply to the High-Speed Train Alternative in this region because none of the segments being considered is located within the boundaries of a state scenic highway.

3. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

To develop a response to this question, an assessment has been made of the extent to which the roadbeds, cuts, fills, structures, and other physical elements related to the presence of the proposed HST project in each of the landscape types along the route would contrast with the landscape setting. For some of the landscape types, photo simulations have been prepared to illustrate the nature of the physical changes and the degree of visual contrast that the project-related alterations would create. Figures 4.3-1 and 4.3-2 depict changes to landscape areas along the Los Angeles to San Diego via Inland Empire corridor, and Figures 4.3-3 and 4.3-4 depict changes to comparable landscape areas along corridor segments in other areas of California. The results of this assessment are summarized in Table 4.3-1.

Table 4.3-1 Degree of Contrast with Landscape Setting

	HSR Profile			
Landscape Type	At-Grade	Depressed	Elevated	Stations
Industrial Corridors	Low	Low	Low	Low
Mixed Urban/Community Core Districts	Low	Moderate	Moderate/High	Moderate/High
High-Density Urban Residential Areas	Low	Moderate	Moderate/High	Moderate/High
Figure 4.3-1				

Table 4.3-1 Degree of Contrast with Landscape Setting

	HSR Profile			
Landscape Type	At-Grade	Depressed	Elevated	Stations
Lower-Density Suburban Residential Areas	Low	Low	Moderate/High	Moderate/High
Figure 4.3-2				
Freeway Corridors	Moderate	Low	High	Moderate
Figures 4.3-3 and 4.3-4				
Institutional/Large Scale Commercial Areas	Low	Low	Low	Low
Park and Recreation Areas	Moderate	Low	Moderate/High	Moderate/High



Figure 4.3-1 Little Italy in San Diego (Subsegment 3B2)



Figure 4.3-2 Single-Family Subdivision



Figure 4.3.3 I-15 in Northern San Diego County (Subsegment 2A1)



Figure 4.3-4 Diablo Tunnel

Based on the application of the impact levels for each of the landscape types presented in Table 4.3-1, an assessment was made of the potential for high-contrast impacts along each of the subsegments of the alignments being considered and in the vicinity of each of the proposed stations. This assessment is summarized in Table 4.3-2. If it was determined that there is a potential for the creation of a significant impact in the subsegment related to substantial degradation of visual character or quality of the area, this finding is noted.

Table 4.3-2 Assessment of the Potential for High-Contrast Impacts along the HST Alternative in the Los Angeles to San Diego via Inland Empire Region

Segment or Subsegment	Description of Alternative or Segment Location	Potential for High-Contrast Impacts (H,M,L)	Notes
	Segment 1	: Union Station to N	flarch ARB
Segment 1A			
1A1	Union Station to Pomona	М	Much of route is at grade or depressed. Potential for elevated sections to contrast with residential neighborhoods in East Los Angeles and with city center area in Pomona
1A1	El Monte Station	L	
1A2	Pomona to Ontario	M	Most of route is in industrial corridors, but potential for elevated sections to contrast with city center areas in Pomona and Ontario
1A2	Pomona Station	М	Scale of the station has some potential to contrast with the surrounding downtown area
1A2	Ontario Station	L	
1A3	Ontario to Colton along Segment 1A	L	
1A3	Colton Station	L	

Table 4.3-2 Assessment of the Potential for High-Contrast Impacts along the HST Alternative in the Los Angeles to San Diego via Inland Empire Region

Segment or Subsegment	Description of Alternative or Segment Location	Potential for High-Contrast Impacts (H,M,L)	Notes
1A4	Colton to March ARB	H*	Most of route is at grade, but elevated segment over an arterial street in a residential area behind UC Riverside would create a high level of visual contrast and significant visual impacts
1A4	UC Riverside Station	M	
Segment 1B			
1B1	Union Station to Pomona	M	Most of route is in industrial corridors, but potential for elevated sections to contrast with adjacent residential areas in East Los Angeles, Montebello, and Pico Rivera
1B1	South El Monte Station	L	
1B1	City of Industry Station	L	
Segment 1C			
1C1	Ontario to Colton along Segment 1C	H*	Although much of route is at grade and in industrial areas, potential for elevated sections to contrast with residential neighborhoods in Rialto and San Bernardino, creating significant impacts
1C1	San Bernardino Station	H*	Potential for a high level of contrast with the adjacent residential neighborhood, creating significant impacts
	Segment	t 2: March ARB to N	1ira Mesa
Segment 2A			
2A1	March ARB to Escondido	H*	Long segments with elevated structures in freeway medians could adversely affect views from the road by blocking views toward the surrounding hills, which potentially could create significant impacts
2A1	March ARB Station	L	
2A2	Beginning of Segment 2B to end of 2B along 2A	L	
2A2	Temecula Station	L	
2A2	Escondido Station	L	
2A3	End of Segment 2B to Mira Mesa	L	
Segment 2B	,		
2B1	Beginning of Segment 2B to End of 2B along 2B	H*	Development of a rail corridor down an arterial street through the center of a community would result in high levels of visual contrast and has the potential to create significant impacts

Table 4.3-2 Assessment of the Potential for High-Contrast Impacts along the HST Alternative in the Los Angeles to San Diego via Inland Empire Region

Escondido Transit Center Station Segment 3: N	H* lira Mesa to Southe	Form and scale of station structures likely to create a high level of contrast with the suburban city center context, creating the potential for significant impacts
Segment 3: M	lira Mesa to Southe	prince for organical impacto
	ma moda to count	ern Terminus
Mira Mesa to Qualcomm Stadium	L	
Mira Mesa Station	L	
Qualcomm Stadium Station	L	
Beginning of Segment 3C to end of 3C, along 3B	H*	At-grade route would cut through a residential neighborhood and an open space area, creating high levels of contrast and the potential for a significant impact
End of Segment 3C to Downtown San Diego	H*	Elevated structure would be visible from residential neighborhoods and Balboa Park, creating moderate to high levels of visual contrast. Elevated structure would also pass through a city center area and directly in front of high rise residences, adversely affecting views and creating the potential for significant impacts
Transit Center Station	Н	Could adversely affect views from an open space area
San Diego International Airport Station	L	
Downtown San Diego Station	Н	
Beginning of Segment 3C to end of 3C, along 3C	Н*	Elevated structure would travel along arterial street and golf course, creating a high level of contrast and the potential for significant impacts
	Stadium Mira Mesa Station Qualcomm Stadium Station Beginning of Segment 3C to end of 3C, along 3B End of Segment 3C to Downtown San Diego Fransit Center Station San Diego International Airport Station Downtown San Diego Station Beginning of Segment 3C to end of 3C, along 3C	Stadium Mira Mesa Station Dualcomm Stadium Station End of Segment 3C to end of 3C, along 3B End of Segment 3C to Downtown San Diego Fransit Center Station Downtown San Diego Station H Beginning of Segment 3C to H* Beginning of Segment 3C to H* Beginning of Segment 3C to end of 3C, along 3C H Beginning of Segment 3C to end of 3C, along 3C

4. Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

During the construction period, it is likely that some construction would occur at night, requiring high levels of illumination. For segments of the route in proximity to residential areas, this night lighting would likely create high levels of visual impact. However, because the construction period would likely be relatively short in duration, the night lighting impacts would not be permanent and, thus, not considered to be significant. During the operational phase of the project, the portions of the project that would have the most substantial lighting are the areas at each of the train stations. In cases where the stations are



close to residential areas, as would be the case with the San Bernardino, Temecula, and Transit Center Stations, this night lighting has the potential to create significant impacts if not mitigated.

A different but somewhat related impact that is not addressed by CEQA, but which is relevant for a project of this type, is the potential of the project to cast shadows. Experience with shadow issues suggests that shadows cast by new projects are of the greatest concern when they affect park and open space areas, heavily used pedestrian environments, and residential settings. Table 4.3-3 presented below identifies the extent to which the HST Alternative would be likely to cast shadows on these types of areas.

Table 4.3-3 Assessment of the Potential for Shadow Impacts along the HST Alternative in the Los Angeles to San Diego via Inland Empire Region

Segment or Subsegment	Description of Alternative or Segment Location	Potential for Shadow Impacts (H,M,L)	Notes		
	Segment 1: Union	Station to	March ARB		
Segment 1A					
1A1	Union Station to Pomona	Н	Much of route is at grade or depressed. Potential for elevated sections to cast shadows on residential neighborhoods in East Los Angeles and within city center area in Pomona		
1A1	El Monte Station	L			
1A2	Pomona to Ontario	M	Most of route is in industrial corridors, but potential for elevated sections to create shadows in city center areas in Pomona and Ontario		
1A2	Pomona Station	M	Station structures have potential to cast additional shadows on surrounding downtown pedestrian areas		
1A2	Ontario Station	M	Station structures have potential to cast additional shadows on surrounding downtown pedestrian areas		
1A3	Ontario to Colton along Segment 1A	L			
1A3	Colton Station	L			
1A4	Colton to March ARB	Н	Elevated segment over an arterial street in a residential area behind UC Riverside has the potential to cast shadows on sidewalks and residential properties		
1A4	UC Riverside Station	L			
Segment 1B	Segment 1B				
1B1	Union Station to Pomona	M	Most of route is in industrial corridors, but potential for elevated sections to contrast with adjacent residential areas in East Los Angeles, Montebello and Pico Rivera.		
1B1	South El Monte Station	L			
1B1	City of Industry Station	L			

Table 4.3-3 Assessment of the Potential for Shadow Impacts along the HST Alternative in the Los Angeles to San Diego via Inland Empire Region

		Potential	
		for Shadow	
Segment or Subsegment	Description of Alternative or Segment Location	Impacts (H,M,L)	Notes
Segment 1C	•		
1C1	Ontario to Colton along Segment 1C	Н	Potential for elevated sections to cast shadows on residential neighborhoods in Rialto and San Bernardino
1C1	San Bernardino Station	Н	Potential station structures to cast shadows on the adjacent residential neighborhood
	Segment 2: Marc	h ARB to N	/lira Mesa
Segment 2A			
2A1	March ARB to Escondido	Н	In long segments with elevated structures in freeway medians, shadows created by structures could be perceived to be a negative impact
2A1	March ARB Station	L	
2A2	Beginning of Segment 2B to end of 2B along 2A	L	
2A2	Temecula Station	М	
2A2	Escondido Station	М	
2A3	End of Segment 2B to Mira Mesa	L	
Segment 2B			
2B1	Beginning of Segment 2B to End of 2B along 2B	Н	If the rail facility to be developed down an arterial street through the center of this community is elevated it would be likely to create substantial shadow effects
2B1	Escondido Transit Center Station	М	
	Segment 3: Mira Mes	a to South	ern Terminus
Segment 3A			
3A1	Mira Mesa to Qualcomm Stadium	L	
3A1	Mira Mesa Station	L	
3A1	Qualcomm Stadium Station	L	
Segment 3B			
3B1	Beginning of Segment 3C to end of 3C, along 3B	L	
3B2	End of Segment 3C to downtown San Diego	Н	Elevated structure has potential to create substantial shadow effects in mixed-use area north of downtown San Diego Station
3B2	Transit Center Station	M	
3B2	San Diego International Airport Station	L	
3B2	Downtown San Diego Station	M	

Table 4.3-3 Assessment of the Potential for Shadow Impacts along the HST Alternative in the Los Angeles to San Diego via Inland Empire Region

Segment or Subsegment	Description of Alternative or Segment Location	Potential for Shadow Impacts (H,M,L)	Notes
Segment 3C			
3C1	Beginning of Segment 3C to end of 3C, along 3C	Н	Elevated structure likely to create shadow effect on adjacent arterial street and golf course
H high M moderate I low * Potential for Significant Impact			

Table 4.3-4 summarizes all of the potential aesthetics and visual impacts.

5.0 REFERENCES

Appleyard, D., K. Lynch, and J.R. Myer. *The View From the Road*. Cambridge: MIT Press, 1964.

Parsons-Brinckerhoff. *Final Draft Environmental Analysis Methodologies*. Prepared for California High-Speed Rail Authority, November 7, 2002.

Parsons-Brinckerhoff. *Plans and Profiles*. Prepared for California High-Speed Rail Authority, November 2002.

Parsons-Brinckerhoff. *Final Draft Environmental Analysis Methodologies*. Prepared for California High-Speed Rail Authority, November 7, 2002.

U.S. Department of Transportation, Federal Highway Administration. *Visual Impact Assessment for Highway Projects.* 1988.

6.0 PREPARERS

6.1 HNTB CORPORATION

Linda Bohlinger Vice President HNTB Corporation

John S. Kulpa Chief Transportation Planner HNTB Corporation

6.2 CH2M HILL

Brian Hausknecht Senior Planner CH2M HILL

Richard Burke Transportation Environmental Specialist CH2M HILL

Thomas Priestley Senior Environmental Planner CH2M HILL Doctoral course work, Public Administration, University of Southern California; M.P.A., Public Administration, University of Southern California; B.A., Spanish, University of California, Santa Barbara. 25 years of experience in the transportation industry. Currently a National Vice President, Rail Services, with the HNTB Corporation. Most recent position was as the Executive Director of South Florida's Tri-County Commuter Rail Authority (Tri-Rail). Held previous positions as the CEO for the Los Angeles County Metropolitan Transportation Authority and other positions in California state and regional government.

Project Principal

Ph.D., Business Management, LaSalle University; M.S., Urban and Environmental Studies, Rensselaer Polytechnic Institute; B.A., Political Science, New York University. 22 years of experience in transportation planning and engineering.

• Project Manager

M.S., Environmental Engineering, University of Florida; B.A., Biology, Jacksonville University. 20 years of experience in hazardous materials management and environmental analysis.

Project Manager

M.S., Technology Policy, Washington University; B.S., Architecture, Stanford University. More than 25 years of national and international experience in directing environmental projects that comply with requirements of NEPA, CEQA, and other governmental regulations.

• Senior Reviewer

Ph.D., Environmental Planning, UC Berkeley; M.C.P., City Planning, UC Berkeley; M.L.A., Environmental Planning, UC Berkeley; B.U.P., Urban Planning, University of Illinois. More than 20 years of professional experience in urban and environmental planning and project assessment. Known nationwide for his expertise in evaluating aesthetics, land use, property value, and public acceptance issues.

Task Lead

Brenda Eells Environmental Planner CH2M HILL M.S., Planning, University of Wyoming; B.A., Geography, Wittenburg University. Environmental planner with more than 4 years of experience in analysis for NEPA and CEQA compliance. Experience with land use and visual resource analysis provide her solid background for evaluating complex environmental policy issues.

Field Evaluation

APPENDIX – A APPENDIX A - VIEWPOINT LOCATION MAPS

